

## Exhibit 2

**Subject:** Re: [EXTERNAL] Skinners Falls - mussel review  
**Date:** Friday, January 31, 2025 at 12:22:25 PM Eastern Standard Time  
**From:** Yu, Sze Wing <szewing\_yu@fws.gov>  
**To:** Lauren Williams <lmw@greenworkslawconsulting.com>

Hello Ms. Williams,

No worries. It is our understanding that FHWA is the lead federal agency. PennDOT is delegated by the FHWA as a non-federal representative for the purposes of conducting Section 7 Endangered Species Act interagency consultation (not just for this bridge, but for other projects as well). So PennDOT is conducting the project and FHWA is involved as the federal agency. Hope this makes sense.

PennDOT contacted us on 12/17/2024 with the demolition alternative for consultation.

Best wishes,

**Sze Wing Yu** (she/her; pronounced "C-Wing")  
Transportation Liaison  
**U.S. Fish & Wildlife Service**  
**Pennsylvania Field Office**

p: 814-206-7461  
110 Radnor Rd; Suite 101  
State College, PA 16801  
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**From:** Lauren Williams <lmw@greenworkslawconsulting.com>  
**Sent:** Friday, January 31, 2025 11:50 AM  
**To:** Yu, Sze Wing <szewing\_yu@fws.gov>  
**Subject:** Re: [EXTERNAL] Skinners Falls - mussel review

Ms. Yu,

My apologies, I had a couple other questions, if you have a moment. Is FHWA the lead agency for this project? It is presently unclear from the documentation that PennDOT has provided.

Also, when did FHWA contact FWS about the demolition alternative for consultation?

Thank you.  
Lauren Williams

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**From:** Yu, Sze Wing <[szewing\\_yu@fws.gov](mailto:szewing_yu@fws.gov)>  
**Date:** Tuesday, January 28, 2025 at 4:24 PM  
**To:** Lauren Williams <[lmw@greenworkslawconsulting.com](mailto:lmw@greenworkslawconsulting.com)>  
**Subject:** Re: [EXTERNAL] Skinners Falls - mussel review

Hello Ms. Williams,

Yes, we are aware that PennDOT plans to use explosive demolition.

**Sze Wing Yu** (she/her; pronounced "C-Wing")  
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**From:** Lauren Williams <[lmw@greenworkslawconsulting.com](mailto:lmw@greenworkslawconsulting.com)>  
**Sent:** Tuesday, January 28, 2025 3:53 PM  
**To:** Yu, Sze Wing <[szewing\\_yu@fws.gov](mailto:szewing_yu@fws.gov)>  
**Subject:** Re: [EXTERNAL] Skinners Falls - mussel review

My apologies, you said December 20 and I missed that.

I guess my other question remains - was FWS aware that PennDOT is planning to demolish the

bridge entirely, including by use of explosive demolition of the trusses?

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**From:** Lauren Williams <[lmw@greenworkslawconsulting.com](mailto:lmw@greenworkslawconsulting.com)>  
**Date:** Tuesday, January 28, 2025 at 3:42 PM  
**To:** Yu, Sze Wing <[szewing\\_yu@fws.gov](mailto:szewing_yu@fws.gov)>  
**Subject:** Re: [EXTERNAL] Skinners Falls - mussel review

Ms. Wing,

Thanks so much. If you don't mind me asking – what date was this sent? It seems to reflect a prior PennDOT proposal to dismantle the bridge. They are presently planning to demolish the bridge entirely, including by explosive demolition, which we assume would involve the heavy trusses falling into the river and being removed with equipment.

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**From:** Yu, Sze Wing <[szewing\\_yu@fws.gov](mailto:szewing_yu@fws.gov)>  
**Date:** Tuesday, January 28, 2025 at 3:27 PM  
**To:** Lauren Williams <[lmw@greenworks法律咨询.com](mailto:lmw@greenworks法律咨询.com)>  
**Subject:** Re: [EXTERNAL] Skinners Falls - mussel review

Hello Lauren,

Thank you for reaching out and apologies for my office phone not working. Below is our response of December 20, 2024 to Melanie Barber of the Federal Highway Administration, which is the lead federal agency for this PennDOT project.

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RE: USFWS Project # 2022-0090460  
Skinners Falls Emergency Bridge Removal  
Pennsylvania Department of Transportation, District 4-0

Dear Ms. Barber:

This email offers our assistance in helping the Federal Highway Administration (FHWA) comply with section 7 of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) for the Pennsylvania Department of Transportation (PennDOT) emergency removal of the Skinners Falls Bridge spanning Milanville, Pennsylvania and Skinners Falls, New York.

During any emergency situation, our primary objective is to provide recommendations for minimizing adverse effects to listed species without impeding response efforts. During emergency events, *protecting human life and property should come first every time*. Consequently, no constraints for the protection of listed species or their critical habitat will be recommended if they place human lives or structures (e.g., houses) in danger.

The project area is within the range of the dwarf wedgemussel (*Alasmidonta heterodon*), a freshwater mussel species federally-listed as endangered. The dwarf wedgemussel lives on muddy sand, sand, and gravel bottoms in areas of slow to moderate current and little silt deposition in creeks and rivers ([Federal Register Vol. 55, No. 50, p.9447-9448](#)). The dwarf wedgemussel is commonly associated with the eastern elliptio (*Elliptio complanata*) and triangle floater (*Alasmidonta undulata*), and other co-occurring mussels including the creeper (*Strophitus undulatus*) ([Federal Register Vol. 55, No. 50, p.9448](#)). In the Delaware River, the dwarf wedgemussel has been documented to occur in flow refugia where they can survive lower flow velocity and shear stress, along with cold groundwater upwelling to protect against low-flow events during the summer months ([Briggs et al. 2013](#)).

In 2013, PennDOT contracted EnviroScience, Inc. to conduct a freshwater mussel survey for the proposed rehabilitation of this bridge. The survey found a total of 1,493 living mussels, mostly of eastern elliptio with some creeper and alewife floater (*Anodonta implicata*). The survey did not find living or dead shells of the dwarf wedgemussel. However, an updated mussel survey has not been done since then. In a meeting about this emergency project of November 4, 2024, EnviroScience, Inc. stated that the survey area had a variety of habitats, including slow and vegetated areas.

PennDOT has facilitated multiple resource agency meetings about this proposed removal of the Skinners Falls Bridge since November 4, 2024. During these discussions, we have shared feedback on the proposed alternatives, all of which included rock causeways in the Delaware River to facilitate a large crane and placement of the bridge trusses. PennDOT has not provided a final proposed alternative. Therefore, we provide the following comments for avoiding, minimizing, and mitigating impacts to the dwarf wedgemussel as PennDOT continues to refine their design and implement the project:

Minimize the footprint of the causeway to reduce the amount of mussel crushing and impacts to streambed habitat, including indirect impacts upstream and downstream of the structure;

Consider designs such as a bridged causeway, which PennDOT District 1-0 has implemented for projects such as the Hunter Station Bridge Replacement, West Hickory Bridge Replacement, and Carlton Bridge Replacement, to minimize freshwater mussel impacts;

Design the project to minimize upstream sedimentation and pooling resulting from the damming effect of a causeway, as these effects would suffocate mussels with sediment and reduce oxygenated flow;

Design the project to minimize downstream scour resulting from causeway overtopping, crosspipes constricting water flow, and a narrowed channel, as these effects would dislodge and kill mussels and damage streambed habitat;

Minimize degradation of water quality by adhering to erosion and sedimentation control measures;

Notify the Service if a spill, overtopping of the causeway, or other unplanned events occur that may result in additional upstream and/or downstream harm and mortality of mussels so that these events may be documented;

Collect intact shell(s) or freshly dead specimens to aid in assessing the existing mussel community;

Restore the streambed to preexisting conditions, including removal of all construction material and debris, repair of areas of sedimentation and scour, and restoration and revegetation of streambanks using native species;

Conduct post-construction monitoring of the mussel community, water quality, and streambed habitat to document the effects of the project and assess contributions to the Mussel Conservation Fund to offset impacts;

Document how our recommendations are (or are not) implemented, and the results of implementation in minimizing impacts to the species.

If FHWA determines that incidental take of the dwarf wedgemussel or any other listed species has occurred as a result of this project, please initiate formal consultation under Section 7 of the ESA. We will provide an incidental take statement for your emergency actions in a biological opinion developed at a later date. Because the incidental take statement is after-the-fact, reasonable and prudent measures are not included in the biological opinion. However, the biological opinion will contain an evaluation of whether and how our recommendations were incorporated during the emergency. It is important to note that “take” resulting from the emergency itself is not attributable to the Federal action agency.

If FHWA determines that incidental take of the dwarf wedgemussel or any other listed species did not occur as a result of this project, then no further action is required under the ESA.

In addition to the above comments for the ESA, we provide the following advisory recommendations under the authority of the Fish and Wildlife Coordination Act of 1934 (48 Stat. 401, as amended; 16 U.S.C. 661 et seq., as amended):

Design the causeway to allow for migratory fish passage (American eel, shad species, alewife, and striped bass) by not spanning the entire width of the river; Consider contributions to the Mussel Conservation Fund to offset impacts to mussel species that are not federally-listed, since the project will crush the potentially thousands of existing mussels within the causeway footprint and kill or harm mussels upstream and downstream via sedimentation and scour. Freshwater mussels improve water quality by water filtration, and the existing mussel community clears several hundred thousand liters per hour (estimated based on the eastern *elliptio*'s clearance rate of 2.85 L/h, [Kreeger et al. 2018](#)). This ecosystem service would be lost and reduced until the community returns, if it is able to following streambed restoration. The crushing of thousands of mussels would also degrade water quality as they decompose, reducing oxygen availability and increasing ammonia levels for some time after project completion.

Finally, we provide the following guidance under the authority of the Bald and Golden Eagle Protection Act of 1940 (54 Stat. 250, as amended; 16 U.S.C. 668-668d):

There is one known bald eagle nest approximately one mile upstream of the project area. We recommend that you use the Northeast Bald Eagle Project Screening Form (<https://www.fws.gov/media/northeast-bald-eagle-project-screening-form>) to assess potential impacts to bald eagles. For further guidance, please contact our regional bald eagle coordinator, Shaughn Galloway at [shaughn\\_galloway@fws.gov](mailto:shaughn_galloway@fws.gov).

We appreciate the opportunity to provide comments and recommendations for this project. If you have any questions, please contact Sze Wing Yu at [szewing\\_yu@fws.gov](mailto:szewing_yu@fws.gov) or 814-206-7461.

Citations:

Briggs, M.A., Voytek, E.B., Day-Lewis, F.D., Rosenberry, D.O., and Lane, J.W. 2013. Understanding water column and streambed thermal refugia for endangered mussels in the Delaware River. *Environ Sci Technol.* 47(20): 11423-31.

Kreeger, D.A., Gatenby, C.M., and Bergstrom, P.W. 2018. Restoration potential of several native species of bivalve molluscs for water quality improvement in Mid-Atlantic watersheds. *J Shellfish Res.* 37(5): 1121-1157.

Sincerely,

**Sze Wing Yu** (she/her; pronounced "C-Wing")

Transportation Liaison

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**From:** Lauren Williams <[lmw@greenworkslawconsulting.com](mailto:lmw@greenworkslawconsulting.com)>

**Sent:** Tuesday, January 28, 2025 2:47 PM

**To:** Yu, Sze Wing <[szewing\\_yu@fws.gov](mailto:szewing_yu@fws.gov)>

**Subject:** [EXTERNAL] Skinners Falls - mussel review

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Ms. Yu,

Thank you very much for the return phone call. I would be interested in the emergency consultation review that your office did, so feel free to email me at this address when it's convenient for you.

Thanks very much.  
Lauren Williams

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